APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,567	10/06/2003	Steven S. Crooks	CRNI.100525	3116

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EXAMINER
MOLINA, ANITA C

ART UNIT	PAPER NUMBER
3626	

MAIL DATE	DELIVERY MODE
11/09/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _25 August 2010_.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-9_ is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-9_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Notice to Applicant

This is a non-final action on the merits. In the response filed 08/25/2010, the

following occurred: Claims 1-9 are pending, claim 1 is amended, and claim 10 is

cancelled.

Response to Amendment

The amendment filed 08/25/2010 has overcome the U.S.C. 101 rejections.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in
> public use or on sale in this country, more than one year prior to the date of application for patent in
> the United States.

2.   Claims 1, 5, 6, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by

Lovis and Payne, hereinafter, Lovis.

As per claim 1, Lovis teaches **a computer-implemented method for facilitating**

placement of health care order entry, comprising:

-receiving input indicative of a desired order having terms therein (see: pg

520, Analysis of text entered by users);

-**normalizing the terms of the received input** (see: pg 520, second column,

"The comparison is not case sensitive.");

-**finding possible drug matches for the normalized terms** (see: pg 520), and

-**calculating a rough score for possible order matches** (see: pg 520, second

column, "proximity score");

-**refining the rough score with a rough score adjustment** (see: pg 521,

weights more matches at the beginning of words or sentences); and

-**ranking the found possible order matches from the most-likely to match**

the desired order to the least-likely based upon the refined rough score (see: pg

520, second column, and Figure 1).

As per claim 5, Lovis teaches the computer-implemented method of claim 1,

further comprising displaying the found possible order matches in the ranked

order (see: Figure 1).

As per claim 6, Lovis teaches the computer-implemented method of claim 1,

wherein the rough score calculation includes determining a match distance and

ranking the match based on the distance (see: pg 520, proximity score).

As per claim 9, a computer system having a processor, a memory and an

operating environment, the computer system operable to execute the method as recited

in claim 1, it is rejected for the same reasons set forth for claim 1.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Lovis

in view of US 2002/0165853 to Gogolak.

As per claim 2, Lovis teaches the computer-implemented method of claim 1,

wherein the normalizing comprises:

-**replacing any abbreviations with known terms corresponding to the**

respective abbreviations (see: pg 520, column 2). Lovis fails to specifically teach

eliminating any terms that are numbers. Gogolak teach normalizing terms, including

removing numbers (see: paragraph 56). It would have been obvious to one of ordinary

skill in the art to include in the physician order entry and normalization of text entry of

Lovis, the normalizing a term by removing the numbers as taught by Gogolak because

the claimed invention is merely a combination of old elements, and in the combination,

each element merely would have performed the same function as it did separately, and

one of ordinary skill in the art would have recognized that the results of the combination

were predictable.

5.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lovis in

view of Teich et al, hereinafter, Teich.

As per claim 3, Lovis teaches the computer-implemented method of claim 1,

wherein refining includes matching full sentence orders to the possible order

matches (see: Figure 1 and pg 521, "it weights more matches at the beginning of words

or sentences"). Lovis fails to specifically teach wherein refining includes **adding known**

synonyms to the terms in the possible drug matches. Teich teaches an order entry

system that allows commonly-used synonyms for medications (see: page 318). It would

have been obvious to one of ordinary skill in the art to include in the order entry system

of Lovis, the use of related synonyms as taught by Teich because the claimed invention

is merely a combination of old elements, and in the combination, each element merely

would have performed the same function as it did separately, and one of ordinary skill in

the art would have recognized that the results of the combination were predictable.

6.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lovis in

view of Nelson et al, hereinafter, Nelson.

As per claim 4, Lovis teaches the computer-implemented method of claim 3,

wherein refining further includes normalizing the full sentence orders (see: pg

520, second column, "The comparison is not case sensitive."), **adjusting for exact**

matches (see: pg 520, col. 2, the number of matches is taken into account in computing

the proximity score). Lovis fails to specifically teach wherein refining further includes

adjusting for unit matches. Nelson teaches a semantic normal form for clinical drugs

where the units are made explicit and/or normalized (see: at least abstract and page

558), meaning the units are treated separately from the ingredient names and from the

dose forms, etc.   It would have been obvious to one of ordinary skill in the art to include
in the adjustment for matching of a order string of Lovis, the specific treatment of units
in a drug order as taught by Nelson because the claimed invention is merely a
combination of old elements, and in the combination, each element merely would have
performed the same function as it did separately, and one of ordinary skill in the art
would have recognized that the results of the combination were predictable.

7.   Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lovis in
view of US 6,377,945 to Risvik.

        As per claim 7, Lovis fails to specifically teach the computer-implemented
method of claim 6, **wherein the distance is defined as the number of changes
needed in the possible drug matches to obtain an exact match to the terms of the
received input**. Lovis does teach that the proximity score takes into account number of
mismatches, but it does not explicitly define the distance as such. Risvik teaches the
common metric for approximate word matching is the Levenstein distance or edit
distance is the minimum number of edit operations needed to transform one string into
another (see: column 6, lines 8-20).

8.   Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lovis in
view of US 2003/0069880 to Harrison et al, hereinafter, Harrison.

        As per claim 8, Lovis fails to specifically teach the computer-implemented
method of claim 1, **wherein normalizing includes setting an anti-flag for any found,**

pre-determined anti-terms, and wherein the rough score calculation includes

removing any terms for which the anti-flag is set. Harrison teaches a "NOT"

operator that eliminates records in a search result containing a specific word (see: at

least paragraphs 101-109). Harrison also teaches eliminating stop words and searching

for remaining key words. It would have been obvious to one of ordinary skill in the art to

include in the physician order entry and normalizing of search terms of Lovis, the NOT

operator and removal of stop words as taught by Harrison because the claimed

invention is merely a combination of old elements, and in the combination, each

element merely would have performed the same function as it did separately, and one

of ordinary skill in the art would have recognized that the results of the combination

were predictable.

Response to Arguments

9.   Applicant's arguments with respect to claims 1-9 have been considered but are

moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to ANITA MOLINA whose telephone number is (571)270-

3614. The examiner can normally be reached on Monday through Friday 8am to

5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry O'Connor can be reached on 571-272-6787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. M./
Examiner, Art Unit 3626
11/05/2010

/C. Luke Gilligan/
Primary Examiner, Art Unit 3626